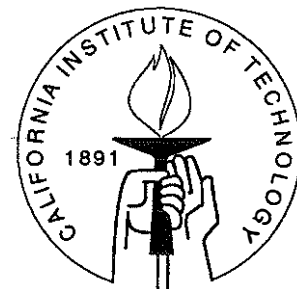


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“LESS FILLING, TASTES GREAT”: THE REALIST-NEOLIBERAL DEBATE

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# **“LESS FILLING, TASTES GREAT”: THE REALIST-NEOLIBERAL DEBATE\***

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## **Abstract**

This essay examines and reformulates the realist-neoliberal debate. Focusing initially on the issue of the attribution of goals to states, we argue that not only are goals merely the epiphenomena of other things but also that their specification constitutes but a re-description of strategic environments. That is, although an attribution of goals may contribute to our characterization of outcomes, a discussion of them is not central to the development of a theory that explains and predicts the outbreak of conflict and the patterns of cooperation. Instead we argue that the realist-neoliberal debate should be recast so that our central research agenda is the development of substantively specific models that allow us to ascertain how the equilibrium to a game in which states structure international affairs influences the types of issue-specific subgames states play, how countries coordinate to equilibria of different types, how we can characterize the coordination problems associated with different equilibria, how states can enhance the attractiveness of an equilibrium, and how states can signal commitments to the strategies that are part of that equilibrium.

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## **"Less Filling, Tastes Great": The Realist-Neoliberal Debate**

Emerson M.S. Niou and Peter C. Ordeshook

The debate between realists and neoliberal institutionalists focuses on two issues: (1) delineating the goals of countries that best account for their actions, especially patterns of cooperation and conflict; and (2) evaluating the possibility that institutions of various descriptions can ameliorate conflict in an otherwise anarchic environment. Realists argue that although states may be concerned in the long run with absolute welfare, the impossibility of eliminating the threat of conflict forces them when evaluating strategies and outcomes, to be predominantly concerned with relative position as measured by military capability, economic productivity, and the like. This concern with relative position, in turn, attenuates the opportunities for cooperation and the role of institutions as facilitators of cooperation. In contrast, neoliberals, drawing on the lessons of scenarios such as the repeated Prisoners' Dilemma and the myriad instances of actual cooperation in international politics, see less reason for supposing that states are concerned *necessarily* with relative gain, see greater opportunities for cooperation, and see an expanded role for institutions as facilitators of that cooperation.

Despite the energy directed at it, this debate remains unresolved insofar as adherents to each school of thought have not yet acknowledged succumbing to the arguments of the other (although neoliberals see themselves as having incorporated realist concerns into their reasoning). Thus, out of either frustration or a belief that logical argument cannot refine matters further, some researchers conclude that a resolution can come only from empirical evidence: "the next scholarly task is to conduct tests of the two approaches" (Grieco 1988:503).

This conclusion, though, is premature, in part because we cannot ascertain a critical test of these two approaches. Both sides of the debate speak more in terms of general tendencies than in terms of differentiating hypotheses, and both sides employ a variety of concepts (e.g., power, regime, cooperation, hegemon, relative gain) that, although treated as theoretical primitives, are either too imprecisely defined to allow for the formulation of such hypotheses or are complex constructs with ambiguous empirical referents. This conclusion is premature also because, as we argue in this essay, neither a theoretical nor an empirical focus on state goals can make the decisive theoretical contribution. Understanding the processes of international politics does not require a prior specification of goals -- goals will be endogenous to any theory we develop and epiphenomena of the interplay of more basic theoretical constructs. Moreover, although generality is sought with appeals to ideas drawn from the rational choice paradigm, and game theory in particular, both sides either misconstrue the content of those ideas or draw incomplete and misleading implications from them.

Indeed, once the correct implications are identified, we can discern the components of a general theory in which the debate need not be resolved in favor of one side or the other. Instead, the debate is transformed to an assessment of the likelihood that states will coordinate their actions and plans in one way rather than another, where this likelihood depends on a complex nexus of things in addition to the properties of equilibria themselves, including subjective beliefs and chance events.

Elaborating on these arguments, this essay recasts the issues that separate realists from neoliberals so as to illuminate a theoretical perspective that encompasses both views and that establishes a research agenda focusing on those issues. We begin with Powell's (1991) argument that goals are endogenous and dependent on circumstances. To this view we add the argument that circumstances are themselves endogenous, which requires that the realist-neoliberal debate move from a theoretically incomplete assessment of the consequences of particular sets of goals to the analysis of the equilibrium of complete systems. However, we go further and argue that goals are but a part of the description of outcomes and strategies rather than fundamental explanatory variables and that a continued focus on goals detracts from our ability to understand international processes in any theoretically general way.

Second, although metaphorical appeals to elements of game theory like the repeated Prisoners' Dilemma and the Battle of the Sexes illustrate some fundamental relations between preference and choice, the possibility of cooperation in anarchic systems, and the problems of coordination, those appeals have reached a point of diminishing marginal returns. Such scenarios may aid in an initial formulation, but we need to begin taking advantage of the general principles of interdependent action that game theory uncovers. We need to take note of the fact that since virtually every on-going social process, however conceptualized, can be assumed to possess a multiplicity of alternative equilibrium outcomes, opportunities to cooperate and the problem of coordination arise nearly everywhere. Cooperation cannot be effective without coordination -- although they are conceptually distinct (cooperation refers to the characteristics of combinations of strategies whereas coordination refers to the mechanisms whereby people are led to choose particular strategies), people cannot cooperate if they cannot also coordinate.

Third, the institutions and regulatory structures that service wholly cooperative arrangements and those that service more competitive and conflictual world orders, are best conceptualized as mechanisms that coordinate the actions of people and of states to particular outcomes within their respective orders. Thus, we accept the view that regimes are either coordination mechanisms or manifestations of coordination (c.f., Young 1980, Stein 1982, Snidal 1985, Krasner 1991, Garrett 1992) and that the realist-neoliberal debate is for the most part an argument about the relative attractiveness of different outcomes and about the efficacy of alternative mechanisms for coordinating to them. However, these institutions and structures, along with the emphasis states on

relative versus absolute gain, as well as the role of power, are themselves components of an equilibrium to a larger game in which states select world orders. Until we model this larger game, we cannot understand fully the forces that lead to the creation of these subsidiary institutions and to the derivative goals that states manifest.

Fourth and as a consequence of our last two points, the realist-neoliberal debate ought to be recast so that the central research agenda assesses the degree of coordination required to achieve equilibria of different types at different levels of interaction. The argument over the type of international system that prevails is an argument about the relative ease with which states can coordinate to wholly non-cooperative outcomes, to partially cooperative outcomes that are characterized by competing alliances, or to wholly cooperative outcomes that correspond to traditional notions of collective security. Within these world orders, we should also examine how states might enhance the attractiveness of different equilibria, how they signal commitments to the strategies that lead to them, and, ultimately, how cooperation and conflict across different issue areas reinforce or undermine the alternative world orders that characterize the interactions of states generally.

## **1. Goals and International Structures**

The realist-neoliberal dispute over goals is summarized by the assertion from one side that "in a self-help system, considerations of security subordinate economic gain to political interest" (Waltz 1979: 107) and the somewhat more ambiguous argument from the other side that "under different systemic conditions states will define their self-interest differently ... where survival is at stake efforts to maintain autonomy may take precedence over all other activities; but where the environment is relatively benign energies will also be directed to fulfilling other goals" (Keohane 1989: 62). Of course, any such discussion should contend with the legitimacy of attributing goals to collectivities and with the possibility that doing so is theoretically unjustifiable (c.f. Arrow 1951). Nevertheless, the concept of the state as a rational unitary decision maker remains a convenient abstraction that allows us to ignore *temporarily* how international affairs impacts domestic politics and how domestic politics transforms the goals of individuals into state actions.

Turning to the dispute itself, the issue of goals is largely a derivative matter. The central issue is the extent to which cooperation can emerge and be sustained in an anarchic environment -- in an environment in which agreements among countries to abide by particular strategies cannot be maintained by notions of collective interest or by exogenous mechanisms of enforcement. Instead, such agreements must be maintained by the individual self-interest of those who are party to them. In game-theoretic terms, cooperative outcomes must correspond to an equilibrium to the non-

cooperative game that models choice sequences, information, and the relation of outcomes to the choices countries confront.

It follows from this concern with endogenous enforcement that the central lesson of the repeated Prisoners' Dilemma -- that the absence of exogenous enforcement need not preclude cooperation, including cooperation that encompass all 'players in the game' (Taylor 1976, Axelrod 1984, Axelrod and Keohane 1986) -- confronts realists with a special challenge and supplies the issue of goals with its apparent relevance. Correspondingly, realists meet this challenge with the argument that the Dilemma does not model the most critical processes of international politics. This argument is defended, in turn, by the view that the imperatives of anarchic systems compel states to be primarily concerned with relative gains: "if ... one state can turn a relative gain to its advantage and the disadvantage of others, then [the system's constraints] will induce a concern for relative gains and this may impede cooperation absent any superior authority to ensure that these gains not be used in this way" (Powell 1991: 1306). The realist response, then, is that the imperatives of survival compel states to be primarily concerned with relative gain, which renders competition constant sum, which allows for no cooperation.

However, this chain of reasoning is not strictly correct even after we accommodate the fact that the proposition "under zero-sum conditions there is no basis for regimes and no reason to coordinate policies, because one actor's loss is another's gain" (Krasner 1991: 338) is false for anything other than 2-person scenarios. Although transforming the Prisoners' Dilemma in Game 1 to Game 2 with the assumption that players maximize the difference in their payoffs renders cooperation impossible, suppose we also admit the possibility, accepted by realists, that states will be concerned with absolute resources at the margin. Thus, if states consider absolute position when they are indifferent between two outcomes with respect to relative position, then the ordinal utilities in Game 3 describe the player's evaluations of the payoffs in Game 1. Notice now that Game 3 is also a Prisoners' Dilemma. Hence, even a minor "adjustment" in the assumption that states maximize relative position readmits the possibility of cooperation.

5, 5	20, 0
0, 20	10, 10

Game 1

0, 0	20, -20
-20, 20	0, 0

Game 2

2, 2	4, 1
1, 4	3, 3

Game 3

Such examples should alert us to the likelihood that conclusions about cooperation and goals depends on the details of how goals are modeled. In fact, if we allow more than two countries, even more alternatives must be considered, which raises the prospect of inherent ambiguity. Specifically,

suppose  $\mathbf{R} = (R_1, R_2, \dots, R_n)$  denotes the resources that countries 1, 2, ...,  $n$  control, and, ignoring how the  $R_i$ 's are defined or measured, suppose we want to use this vector to define more formally the goal of maximizing relative gain. Perhaps the most obvious possibility is to suppose that state  $i$  simply maximizes its share of resources in the system -- that is,

$$\frac{R_i}{\sum_{j=1}^n R_j}$$

For analytic reasons, however, Snidal (1991b) assumes that countries concerned with relative resources maximize,

$$R_i - \sum_{j \neq i} \frac{R_j}{n}$$

Both formulations, though, ignore the possibility that  $i$ 's share or  $i$ 's standing relative to the average of the other countries can increase even as another country surpasses  $i$ . Hence, rather than being concerned with averages, country  $i$  might be concerned with its position relative to the largest country in the system and thereby maximize,

$$R_i - \text{MAX}_{j \neq i} [R_j]$$

Alternatively, if a small country seeks merely to ensure that it is a relevant "player," it might be concerned with the number of countries that are smaller than it. Hence, it might seek to maximize,

$$\sum_{j \neq i} \delta_j$$

$$\text{where } \delta_j = \begin{cases} 1 & \text{if } R_i > R_j \\ 0 & \text{if } R_i \leq R_j \end{cases}$$

Or why not suppose that country  $i$  focuses its attention on some subset of other countries -- those near its borders or outside of its alliance -- and thereby maximizes

$$R_i - \text{MAX}_{j \in C} [R_j]$$

where  $C$  are those countries that especially concern  $i$ ?

That such possibilities are nearly endless suggests that formalizing the relationship between goals and resources in this way is a flawed enterprise -- we cannot merely postulate alternative goals or operationalizations of them and hope to discern a correct theory. Theory must come first and goals

must be endogenous to it. Indeed, we make the stronger argument that goals are an epiphenomena of the theory we seek.

To see first why an algebraic representation of goals is unlikely to be adequate, let us accept the fact, uncontested by realists and neoliberals, that survival can depend on a state's ability to form certain alliances and to preclude others. Next, observe that existing models of coalition formation reveal no simple algebraic relationship between  $R$  and alliance possibilities. Indeed, if we learn anything from game theory, it is that ultimate payoffs need not relate to things such as power or voting weight in any simple way. For example, increasing a person's weight in a committee's deliberations can actually diminish that person's likelihood of securing preferred outcomes to the extent that others respond to the increase with strategic counter-measures (c.f., Brams 1978, Ordeshook 1992, pp 162-4, and Schwartz 1992). It follows that whenever security plays a role in their evaluation of outcomes, actions, and strategies (policies), none of the preceding algebraic formulations can represent all aspects of the strategic imperatives that states confront. And the necessity for some prior theory follows from the fact that without it we cannot ascertain what imperatives are ignored by any specific formulation.

With respect to the necessity for rendering goals endogenous to some theory, we can start with the supposition that states share the long-run goal of welfare maximization and that the theoretical dispute concerns the short term objectives of states. But whether short- or long-term, notice that we cannot observe goals directly -- we can only infer them from actions and choices. And making such inferences requires a substantive theory that links actions, outcomes and goals and that allows us to reject one set of postulated goals in favor of another whenever the later provides a more parsimonious interpretation of events. That is, to formulate sentences like "given actions  $A$ , we infer that states are necessarily pursuing goals  $G$ ," we must justify statements like " $A$  if and only if  $G$ ." Only if  $G$  uniquely implies  $A$  can we infer  $G$  from  $A$ . Thus, we cannot infer the "best" theory by arguing about goals beforehand -- the discussion of goals cannot be separated from the necessity of first formulating a theory that informs us about the meaning of actions.

The formulation of such a theory, though, must begin with the observation that "national policies both influence and are influenced by the types of world order which prevails at the time" (Wright 1965:1493). That is, the degree to which a state must concern itself with relative resources depends in part on the willingness of other states to cooperate; but that willingness is itself dependent on the goals of other states, which depend on the goal and actions of the state in question, and so on. Hence, if  $G = G(E)$  denotes the dependence of the goals of states as they relate to the "environment" in which they operate -- the strategies of other states -- and if  $E$  is itself a function of  $G$  --  $E = E(G)$  -- then we cannot solve separately for either  $G$  or  $E$ ; instead, we must solve for both variables simultaneously.



Notice now that asserting this co-dependence means that the consequences of goals and of alternative environmental conditions are identified only if we solve for the *equilibrium* values of these variables. That is, we must find a  $[G^*, E^*]$  such that if  $E^*$  is the environment of states, then states adjust their goals to  $G^*$  in accordance with the expression  $G^* = G(E^*)$ ; and if  $G^*$  denotes the goals of states, then they choose strategies such that the environment  $E^*$  prevails, where  $E^* = E(G^*)$ . Learning how goals and environment interact, learning whether this interaction can "settle down" to an equilibrium, learning how the existence and character of an equilibrium depends on other things, learning whether such equilibria are unique, and learning the circumstances under which one equilibrium is selected over another is, then, one component of the theory we seek.

This argument, now, is relevant to a number of studies that seek to resolve the debate in favor of one side or the other. Snidal (1991a), for example, purports to show that the consequences realists foresee about the impossibility of cooperation do not follow from their assumptions about goals. However, ignoring the fact that Snidal assumes his conclusion by imposing restrictive conditions on how alliance partners share resource gains (c.f., Grieco 1992) and the fact that generalizing his argument to  $n > 2$  countries encounters the ambiguities of formalizing relative gains, we cannot use his analysis to argue about the consequences of a particular configuration of goals since the resulting strategic imperatives are not allowed to influence the determinants of goals. In his notation, the weight  $r$  given to relative resource maximization ought to be made functionally dependent on the environment that  $r$  helps establish, so assuming that  $r$  is an exogenously determined constant allows for only a partial and necessarily inconclusive argument.

In contrast to Snidal, Krasner (1991) defends the view that "power needs to be given pride of place" (p. 366) within the neoliberal framework. His argument is that implicitly at least, neoliberal institutionalists emphasize the resolution of "market failures" too much at the expense of the processes bargaining among states that determine which Pareto efficient outcome prevails. That is, interactions among states are not exclusively concerned with realizing mutually beneficial outcomes (ensuring Pareto efficiency); they can also be a competition for advantage in which power determines final outcomes. However, if we accept Krasner's definition of power -- "the ability to determine who plays the game, or to define the rules, or to change the values within the payoff matrix" (p. 342) -- then generalizing his analysis requires a model of a more inclusive game in which players select these parameters. For example, the idea that power measures the ability to change payoffs establishes power as an instrumental variable whose weight is dictated by its value with respect to realizing some more basic goal. It follows that Krasner's argument is incomplete. Although his empirical analysis convinces us that at least for the issues under consideration, there is one equilibrium environment  $E^*$  in which  $G^* = \{\text{power maximization}\}$ , we cannot be certain that  $[E^*, G^*]$  is a unique equilibrium until

we specify a strategic environment in which states choose (implicitly or explicitly) to make decisions on the basis of power -- an environment that models anarchic systems and that renders  $E$  and  $G$  endogenous.

Powell (1991) avoids *ad hoc* formulations of goals and, by offering a specific mechanism that renders goals endogenous, approaches this theoretical ideal. But even his analysis is incomplete (deliberately so since his objective is merely to show how the goal of absolute gain is rationally transformed into a concern with relative gain). The determinants of goals are the "constraints defining the system [that] create opportunities for one state to turn relative gains to its advantage and to the disadvantage of others" (p. 1315). In addition to technology, these constraints include the actions of third, fourth, etc. parties (Powell's model is 2-person) as well as the institutional structures that are set up to influence those actions. But because such constraints are clearly endogenous, Powell's analysis cannot supply any definitive resolution of the realist-neoliberal debate.

## 2. Multiple Equilibria and Coordination

The preceding discussion establishes only that goals are endogenous, whereas we also want to argue that goals are more a description of events than they are a primary explanatory variable. Sustaining this assertion, though, requires that we attend to the task of providing a theoretical structure in which that is true. In particular, we require a structure that admits of both the realist and neoliberal scenarios of conflict and cooperation so we can ascertain the conditions under which one scenario rather than the other prevails.

In this and in the next section, then, we reconsider some facts about game theory and about the concepts of cooperation and coordination that allow us to discern the general character of such a structure. Focusing in this section on game theory, we begin by noting that owing to their initial focus on single-play versions of the Prisoners' Dilemma, political scientists became especially concerned that the absence of effective enforcement mechanisms precluded cooperation even if cooperation is socially rational. That we can sustain cooperation as an equilibrium to a non-cooperative game by supposing that the Dilemma is repeated seemed like the critical theoretical result. However, the evident role of regimes in coordinating society to particular outcomes has served to emphasize the relevance of a second scenario -- the 2-person Battle of the Sexes (c.f., Stein 1982, Snidal 1985, Krasner 1991). Recalling that an equilibrium in game theory is a vector of strategies, one for each player, such that no player has an incentive to change its strategy unilaterally, the distinguishing feature of this game is that it has multiple equilibria that are not equivalent (each person prefers a different equilibrium) and that are formed by non-interchangeable strategies (combining strategies from different equilibria need not yield an equilibrium). That equilibrium

strategies are not interchangeable means that each player can choose an equilibrium *strategy* and yet an equilibrium *outcome* does not prevail. That equilibrium outcomes are not equivalent means that no specific outcome need stand out as an obvious point of convergence and that there is room for dispute as to which equilibrium outcome "ought" to prevail.

Taken together, non-equivalence and non-interchangeability mean that the mere existence of equilibria need not resolve any "he-thinks-that-I-think" infinite regress. Thus, while the single-play Prisoners' Dilemma achieves notoriety by revealing that individually rational (equilibrium) choices can yield a socially "irrational" (inefficient) outcome, the Battle of the Sexes gains attention because it illustrates a circumstance in which there is no guarantee that any equilibrium will prevail without "outside intervention" that coordinates the players choices.

To this point we have not said much that is not discussed elsewhere in the literature on international conflict and cooperation (c.f., Stein 1982, Krasner 1991). However, we want to emphasize the theoretical basis for supposing that the things the Battle of the Sexes illustrates are pervasive. Even though one scenario (the Prisoners' Dilemma) so clearly illustrates the problem of cooperation and the other (the Battle of the Sexes) illustrates the problem of coordination, its is nevertheless incorrect to infer that cooperation and coordination are separable issues. We do not want to make the opposite error of confusing these two concepts by equating them, but any solution to the cooperation problem requires a solution to the coordination problem. Indeed, the substantive problems associated with cooperation and coordination are present in virtually every social process.

The theoretical support of this fact is provided, in part, by any one of the folk theorems of game theory (see Myerson 1991 and Fudenberg and Tirole 1992 for expository surveys), which show that the primary lesson drawn from the repeated Prisoners' Dilemma about the possibility of cooperation without exogenous enforcement does not require the dilemma for its validity. If people give the future sufficient weight, then we can sustain *any* outcome as an equilibrium in *any* ongoing (repeated) social process if that outcome yields each person a payoff that exceeds his or her security value -- if it yields a payoff that exceeds what each person can guarantee from unilateral (uncoordinated) action. The mechanism that supports this result is that if processes are repeated, then people have a great many strategies (even an infinity of them), including ones in which their choices at one stage depend on choices at some earlier stage. In particular, they can punish each other for deviating from an agreement, they can punish each other for failing to punish, and so on. Expanding the set of available strategies in this way expands the set of outcomes (or sequences of outcomes) that can be sustained as equilibria. The existence of both cooperative and non-cooperative equilibria in repeated Prisoners' Dilemmas merely illustrates this fact.

Although these folk theorems apply only to repeated games, the analysis offered by the game-theoretic literature of other classes of games reveals that multiple equilibria characterize nearly any relatively complex situation. "It does not greatly matter whether it is the Battle of the Sexes that is repeated, or some other game. Things are much the same if it is the Prisoners' Dilemma that is repeated ... or if Chicken is repeated ... What is important is that the whole spectrum of equilibria becomes available as a possible source of social contracts" (Binmore 1992: 105). To the extent, then, that outcomes that can be classified as either cooperative and non-cooperative, the possibility of cooperation *and* non-cooperation must be deemed endemic to all social processes. That is, if we equate cooperation with the joint selection of strategies that avoid mutually disadvantageous outcomes (Keohane 1984: 54), then there is no reason to suppose that both cooperative and non-cooperative outcomes cannot simultaneously correspond to equilibria in any game. If our sole criterion for assessing whether or not an outcome is feasible is whether or not it is an equilibrium, then just as we cannot preclude the possibility of achieving outcomes that are associated with cooperative strategies, we cannot also preclude the possibility of achieving non-cooperative outcomes.

The generality of these facts establish that the concept of an equilibrium, by itself, does not allow us to make predictions about choices and outcomes and about the likelihood that cooperation will in fact occur. Second, they establish that people are unlikely to cooperate if they cannot also coordinate -- although cooperation and coordination are distinct concepts, they arise as joint issues that must be addressed simultaneously. And third, we now know that prediction and explanation require that we not only learn the types of strategies that support different outcomes, but that we also learn whether the requirements to coordinate to one equilibrium differ from the requirements to coordinate to another one.

Coordination also raises new analytic and empirical problems. Briefly, coordination entails establishing *beliefs* as self-fulfilling prophecies. Two people can coordinate to an equilibrium  $(a^*, b^*)$  if person 1 believes that 2 will choose  $b^*$  and 2 believes that 1 will choose  $a^*$ , and if these beliefs are common knowledge -- if 1 knows that 2 knows that ... and so on. But if there is another equilibrium,  $(a', b')$ , then the players can coordinate to  $(a^*, b^*)$  only if 1 also believes that 2 will not choose  $b'$ , 2 believes that 1 will not choose  $a'$ , 1 believes that 2 believes that ... and so on. So, predicting choices and outcomes requires that we understand the determinants of these beliefs.

What we know about beliefs tells us that the likelihood that  $(a^*, b^*)$  prevails is not determined exclusively by the game's objective character. It is also determined by exogenous circumstances -- prior expectations, history, and chance events that focus attention on specific strategies. Indeed, as one leading game theorist argues, "even seemingly trivial aspects of the way that a game is presented could determine the focal equilibrium that the players implement" (Myerson 1989: 113). Fortunately,

both realism and neoliberalism provide us with some hypotheses about how coordination is achieved in international systems and with the difficulty of coordination to different types of equilibria. It is those hypotheses to which we now turn.

### **3. Coordination Mechanisms and Regimes**

To assess the relevance of coordination to politics in general and to international processes in particular it is useful to consider the assumption commonly employed to justify the realist argument; namely, that "domestic systems are centralized and hierarchic ... International systems are decentralized and anarchic. The ordering principles of the two structures are distinctly different, indeed, contrary to each other" (Waltz 1979: 88). The specific issues we want to address here is whether domestic systems are, in principle, any less anarchic than international systems, why the concept of power appears to be less central in domestic affairs, and whether the concept of coordination can be used to provide a more general understanding of political processes than we gain from other approaches (especially those that rely on some notion of power).

We begin by noting that at one level we could attempt to account for policy outcomes in, say, a democratic society by referring to the power of interest groups, of the media, of the courts versus the legislature, or of the legislature versus the executive. On closer inspection, however, we should find that many of the things associated with power or with the determinants of power derive from a political constitution, implicitly understood or explicitly written, that defines the state and the rules of "legitimate" political action. Thus, understanding domestic politics in terms of a specific constellation of power requires that we understand why society's members implicitly or explicitly accede to the terms of a constitution that helps define and allocate power.

Of course, although they are not necessarily concerned with the concept of "power" per se, constitutional theorists are no less concerned with the matter of endogenous enforcement -- with how a constitution's provisions are sustained and how a "piece of parchment" can contribute to political stability -- than are students of international affairs. The matter of the endogenous enforcement of constitutional provisions, like the issues that ostensibly separate realists and neoliberals, has been long debated owing to the seemingly paradoxical requirement that stable constitutions enforce themselves.

The essence of this paradox and the corresponding source of the temptation to account for stability in terms of power relations is revealed if we attempt to conceptualize a constitution as a contract like the ones that set the terms of market exchanges (c.f., Brennan and Buchanan 1985). Viewing a constitution thus necessarily leads to the question "Who or what enforces the contract?" which leads, in turn, to the search for the ultimate source of enforcement authority in society. But answering that the courts, the legislature, or the imperatives of electoral competition are the source of enforcement

merely pushes the problem back a step so that we must ask: Who enforces the court's prerogatives, the legislature's jurisdiction, or the laws that regulate elections?

At least at the constitutional level, then, states are no less anarchic in principle than international systems in the sense that the ultimate source of domestic political stability must be endogenous. However, what makes domestic politics appear distinct from international politics is that the mere fact of being a state requires that people achieve some minimal level of coordination with respect to the implicit or explicit rules of domestic social process. Without denying the relevance of social norms, custom, and culture, even if we restrict our attention to formalized "democratic" rules, there are a great many alternative equilibria of rules. Thus the members of society must select one of these equilibria -- to establish a stable set of expectations about legitimate process today and in the future so that the mutual benefits of a stable and coherent political system can be realized. Written constitutions are a route to that end.

It follows that constitutions are best conceptualized as mechanisms that help coordinate society to an equilibrium of rules (Hardin 1988, Ordeshook 1992). A constitution is stable and self-enforcing if it establishes a set of self-fulfilling expectations about due process, about rights, and about legitimate ways of making collective decisions. Moreover, conceptualizing constitutions in this way forces us to see them as part of the "social fabric" that coordinates society in general -- as part of the regime that describes society and the state -- and it leads to more practical questions such as "Given the other things that can coordinate social action (e.g., ethnicity, religion, language), how do we craft rules to compete with these things?"

It is true that the salience of the issue of exogenous enforcement fades once a constitution becomes a stable part of society. At that point, students of domestic democratic politics can turn their attention to other matters such as the details of judicial, legislative or electoral process without regard to how the rules specifying the roles of the judiciary, the legislature, or elections are ultimately enforced. However, lurking in the background is the fact that the rules defining these branches and their power constrain individual actions because acceptance of them describes some of the elements of social coordination. Nevertheless, a realist might attempt to reassert the difference between international and stable domestic politics with the argument that power dictates outcomes in pre-constitutional societies and that an international system is better described as such a society. Correspondingly, restating Krasner's (1991) argument about the role of power in determining outcomes in the Battle of the Sexes, power rather than some implicit adherence to rules, structures coordination. However, aside from noting that we have never observed a "pure state of nature" in which people act on some basis other than beliefs about the actions of others in a wholly uncoordinated fashion, suppose we ask how tyrants enforce their edicts. Our first instinct may be to respond: "Through coercion administered by the military or the police." But then we must ask: "Why

does the military or the police follow?" and our answer is "Because, given their private motives, the tyrant coordinates their actions to those ends better than any other available entity." Even if everyone prefers to defect, they need not do so unless another coordinator (revolutionary leader) appears, because each person will otherwise anticipate that his or her defection will result in punishment.

Now consider a context in which Krasner's arguments seem more compelling -- the period between tyranny and constitutional democracy when democratic rules are negotiated. We agree that it is naive to suppose that society in this period is doing little more than "avoiding an inefficient outcomes." Even if everyone is committed to democratic processes, each person will seek rules and institutions that best serve his or her interests. Constitutions are the product of forces in which agreements appear to be dictated by some notion, however ambiguous, of "relative power." But notice now that if we attempt to model this negotiation process, the things we believe constitute power should be made components of that model, including assessments of the actions available to each relevant participant, of the dependence of outcomes on the actions of specific sets of people, and so forth. And, barring the unlikely circumstance of a unique equilibrium, we must once again appeal to hypotheses about how people coordinate to select and achieve an equilibrium. Moreover, we can no longer appeal to the concept of power to account for this coordination, since its components are already incorporated into our description of the situation and since it is that description that occasioned multiple equilibria. Put differently, we cannot use the concept of power to explain power's relevance, at least if we suppose that there are other potential equilibria in which power is a less relevant variable -- or, if we do so suppose that it is unique, then we should offer sound theoretical reasons for doing so.

Turning to a more explicitly international matter, consider a system with a hegemon in which one approach to understanding choices and outcomes is to refer to the hegemon's power. An alternative construction, though, is to view the hegemon as performing a coordinating function that is equivalent to (if not more compelling than) the one performed by a constitution or a tyrant. Owing to its predominance, a hegemon necessarily coordinates the actions of others without requiring extensive negotiation. The hegemon pursues its self-interest, and other states follow in order to avoid the cost of choosing contrary policies. And because the hegemon is much like Schelling's (1960) focal point, it can coordinate punishment strategies that require joint action in the event that it cannot administer those punishments unilaterally. Finally, its actions and policies (e.g., stabilizing international currency exchanges and establishing trading rules) can enhance the value of a cooperative (collective security) equilibrium and thereby render cooperation more attractive than any other alternative. The advantage of focusing on coordination rather than on measures of power now is that it helps explain why a hegemon's role need not evaporate following its decline. If the equilibrium achieved under the hegemon is deemed mutually beneficial and if there are no other competing coordination mechanisms,

the ex-hegemon may continue as the primary instrument of international coordination long after it loses its status. On the other hand, what disappears with the hegemon's relative decline is its ability to punish unilaterally and the expectation on the part of other states that it will do so. Thus, the decline of a hegemon before countries develop other devices that serve the same coordinative functions can greatly disrupt the ability of states to ensure continued adherence to the equilibrium that prevailed previously.

In any event, the cooperative equilibria achieved under a hegemon will be more susceptible to disruption after a hegemon declines owing to the fragility of beliefs. And it is at this point that the neoliberal offers the idea of "regime" as a coordination mechanism to substitute for the role of a hegemon. Indeed, the neoliberal's definition of a regime corresponds nearly identically to such a mechanism -- "sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actor's expectations converge" (Krasner 1983: 2), "a set of mutual expectations, rules and regulations, plans, organizational energies and financial commitments, which have been accepted ..." (Ruggie 1975: 570), "recognized patterns of practice around which expectations converge" (Young 1980: 337), and "rules of behavior that allow actor expectations to converge" (Stein 1982: 127).

Hence, in a way that is wholly consistent with the requirements that game theory sets for achieving specific equilibria, neoliberalism places the study of regimes as coordination mechanisms at the heart of international relations theory. However, it is important to understand that cooperative outcomes are only one class of equilibria and that coordination can also involve disputes over the selection of outcomes "along the Pareto frontier" -- outcomes that may or may not entail overt conflict and that may or may not require an appeal to power and relative resources to discern final outcomes. Thus, to the extent that the realist view can be interpreted as an argument about the "naturalness" of coordination to a class of equilibria other than the ones neoliberals envision as feasible, the debate between realists and neoliberals becomes a debate over the relative ease with which states can coordinate to one equilibrium rather than another. That is, the dispute between realists and neoliberals is this: Realists argue that it is "more natural" to coordinate to non-cooperative equilibria (or to equilibria in which subsets of states -- alliances -- coordinate against other subsets) whereas neoliberals contend that institutions of various descriptions can effectively coordinate states to different (more universally cooperative) outcomes.

#### **4. World Orders as Alternative Equilibria**

Of course, a mere restatement of the realist-neoliberal debate in terms of coordination cannot resolve matters. We now require an understanding of the comparative problems associated with coordinating to the equilibria (world orders) that realists and neoliberals postulate, and, in particular, we must find a way to formalize the meaning of "more natural" when speaking about the equilibria



in which states act as if they maximize relative gain. That is, we should assess the argument that realist equilibria somehow impose fewer requirements on coordination than do the equilibria postulated by neoliberals. Correspondingly, we also want to assess whether anarchic system can occasion equilibria in which power plays little or no role in addition to equilibria in which power is the central concern of states. Thus, we require an analysis that in principle at least allows for the simultaneous existence of these equilibria, that informs us about the properties of the strategies that correspond to these equilibria when they exist, and, subsequently, that identifies the comparative advantages of coordinating to one of these equilibria rather than another.

In searching for an appropriate theoretical sub-structure, we might begin once again with the Prisoners' Dilemma. However, there are reasons for supposing that this scenario cannot suit our purposes. First, even though Powell's (1991) analysis suggests that there may be routes around the problem, the usual representations of the repeated Dilemma does not allow for the elimination of states (Grieco 1990). Thus, the existence of universally cooperative equilibrium there cannot be interpreted as a solution to any "security dilemma" that states can confront. Second, unless we explicitly focus on  $n$ -person formulations and on strategies other than, say, Tit-for-Tat, the Prisoners' Dilemma can mislead us about the viability of the neoliberal position. Recall that analyses of the 2-person Dilemma focus on two equilibria -- a "cooperative" one in which all mutual gains are realized through an equilibrium of Tit-for-Tat strategies and a "non-cooperative" one in which the players forego these gains and choose myopically dominant strategies. Of these two equilibria, one is clearly more socially attractive than the other, so we might reasonably conjecture that coordination to it can be realized without great difficulty. But the particular concern of realists is that there are other even more compelling equilibria -- equilibria in which states pursue strategies that yield antagonistic alliances designed to preclude the dominance of any single state (i.e., balance of power equilibria). The issue, then, is not whether countries must choose between wholly cooperative (e.g., collective security) equilibria and wholly non-cooperative equilibria, but whether they can also cooperate by forming competitive alliances.

These criticisms suggest that one approach is to consider  $n$ -person versions of the Dilemma, strategies that allow only subsets of players to cooperate, and models that somehow nest Prisoners' Dilemmas and Battle of the Sexes scenarios (Garrett 1992). However, rather than force any model into the straightjacket of particular scenarios, we should instead look at analyses that directly model the sources of conflict and cooperation, that allow for the elimination of countries, that allow for alliances, and that allow as well for cooperative equilibria in the form of, say, collective security arrangements that seek not only to ensure against conflict but that also are designed to realize the benefits of an efficient world economy. For these reasons it is useful to consider Niou and

Ordeshook's (1990, 1991) analysis of balance of power and collective security, which, although it offers a highly stylized and abstract model of conflict, does consider the possibility of sustaining cooperation, such as an all-encompassing collective security arrangement, in a system in which there are no exogenous enforcement mechanism. And because it does this in a zero-sum environment, this analysis allows us to investigate the possibilities of cooperation that do not depend, as in the repeated Dilemma, merely on there being gains from trade of sufficient magnitude. Cooperation, if it emerges at all, does so because defection from cooperative arrangements are punished by other states, each of whom must weigh the advantage of participating in a punishment versus defecting themselves, conditional on what they believe about the strategies of all other states in the system.

There is little reason to delve into the complexities of this analysis, which treats a rather complex stochastic game and which thereby confronts us with some technical analytic issues that we prefer to avoid in this essay. So, to begin with the simplest possibility, suppose there are three countries and that the initial endowment of resources is  $R^0 = (120, 100, 80)$ . Suppose states seek to maximize their resources and that this resource also measures their ability to overcome each other -- that is, resources correspond to "power" or, equivalently, voting weight). Next, imagine that these three states must play the following threat-counter-threat game:

1. One country, chosen at random, has the first move. Suppose this country is state 1, which must threaten the redistribution (150,150,0), threaten (150,0,150), or "pass."
2. If 1 passes, then 2 gets the first move; and if 2 also passes, 3 gets the first move (all moves parallel those of state 1 in the obvious ways).
3. If 1 threatens, its partner must decide whether to participate in the threat. If this partner chooses not to participate, then 2 gets the "first" move as in step 2.
4. If 1's partner accepts, the threatened state (2 if 1 threatens (150,0,150) or 3 if 1 threaten (150,150,0)) must chooses between transferring some of its resources to 1 or offering a counter-threat. Counter threats for 2 take the form (0,150,150) and (150,150,0) whereas counter threats for 3 take the form (150,0,150) and (0,150,150).
5. Suppose that if 2 or 3 proposes a transfer, it transfers to make 1 indifferent between its threat and the transfer. Hence, if 2 transfers, it must propose (150,70,80) whereas if 3 transfers, it proposes (150,100,50). Assume that 1 accepts the transfer in order to avoid the cost of implementing a threat. And once 1 controls half the resources in the system, suppose the game ends, because any subsequent action gives 1 the opportunity to take advantage of conflicts, to become predominant, and to overcome all states in the system.
6. If, instead, the threatened country proposes a counter-threat, its partner must choose between accepting or rejecting the proposal.

7. If the proposal is rejected, the original threat is implemented -- thereby eliminating the threatened country.
8. If the counter is accepted, it becomes the new current threat, and as in step 2, the threatened player must choose either a new counter-threat or a resource transfer.

We note simply now that this 3-country game occasions two types of equilibria, which can be supported by the following (approximately described) strategies (notice that strategies specify what players do along the equilibrium path as well as what they should do if one or more players defect from that path):

- E1: Country 1, if given the first move, threatens (150,0,150); 2 threatens (0,150,150); 3 passes or threatens (150,0,150) or (0,150,150). If the initial threat is (150,150,0), then "reject;" otherwise "accept." If threatened, states 1 or 2 transfer to the largest threatening country. If state 3 is threatened, then 3 offers (150,0,150) or (0,150,150) as a counter-threat. The equilibrium outcome here is an even chance lottery between (150,70,80) and (70,150,80).
- E2: No state makes an initial threat, but if one is offered, the proposed partner "rejects." If the initial threat is rejected, then the "defecting" state is punished by being threatened in the next stage (and this threat is accepted). If two players defect by making and accepting an initial threat or by failing to punish, then play the game as described in E1. The equilibrium outcome here is the initial status quo, (120,100,80).

The first equilibrium corresponds to a pure conflict scenario in which a threat is made at the first opportunity and the threatened country, 1 or 2, survives only by "buying off" the largest threatening country. No country is eliminated, but only because each has sufficient resources to make a "game ending" transfer and because no one wants to allow anyone else to be predominant. Extensions of this analysis to  $n$ -countries reveals, moreover, that countries can be eliminated or can become more susceptible to being forced to make a resource transfer if their resources diminish too greatly or if other states increase their resources too much. Hence, in an E1-type equilibrium, states are necessarily concerned with power and relative gain.

In contrast, the second equilibrium corresponds to an all-encompassing collective security system in which everyone agrees not to make an initial threat and defectors are punished by the remaining countries. Notice that collective security here need not have a purely military connotation -- it can refer also to various economic agreements that are enforced by punishment strategies applied to those

who defect from trade, monetary, or other such agreements. Whatever its interpretation, cooperation (in the form of the absence of threats) is self-enforcing here, because punishments eliminate the benefits of defection and because administering those punishments is rational. In game-theoretic terms, this equilibrium is *subgame perfect*.

We also want to emphasize that an E2-type equilibrium exists regardless of the number of countries and regardless of the distribution of resources. It follows, then, that in such an equilibrium states can pursue those subsidiary policies that generate mutual gains and, as in domestic politics, they can focus their attention on the construction of those institutional structures that regulate the Prisoners' Dilemma-type scenarios that arise among states. Put simply, in an E2-type equilibrium, states need not concern themselves with relative gain at the expense of absolute gain.

The situation that confronts the three countries in our example, then, is summarized by Game 4, which illustrates the 3-country game that results from our scenario if each country must choose between playing in accordance with E1 or E2. For example, if 1 chooses E1 and 2 and 3 play according to E2, then 1 defects (by offering an initial threat), and 2 and 3 punish 1 and force 1 to transfer resources to 2. Hence, we enter (70,150,80) in cell (E1,E2,E2). In contrast, if 1 and 3 choose E1 but 2 chooses E2, then 1 and 3 threaten 2 and force a transfer to 1. Hence, we enter (150,70,80) in cell (E1,E2,E1). If 1 and 2 choose E1 but 3 chooses E2, then either 1 or 2 make an initial threat (depending on who nature chooses first), 3 rejects, and the defector is punished so that either (150,70,80) or (70,150,80) prevails. Hence, we enter (110,100,80) in cell (E1,E1,E2).

	E1		E2	
	E1	E2	E1	E2
E1	110, 110, 80	150, 70, 80	110, 110, 80	70, 150, 80
E2	70, 150, 80	110, 110, 50	150, 70, 80	120, 100, 80

Game 4

Notice now that Game 4 has the two equilibria, (E1,E1,E1) and (E2,E2,E2), we describe. But as in the Battle of the Sexes, these equilibria are neither equivalent nor interchangeable -- country 1 prefers (E2,E2,E2), country 2 prefers (E1,E1,E1), and alternative combinations of E1 and E2 are not equilibria. Hence, without some means of coordinating strategies, there is no reason to suppose that one equilibrium or the other will be achieved or, indeed, whether any equilibrium at all will prevail.

The relevance of this example, then, is four-fold. First, we see that both cooperative and non-cooperative equilibria -- world orders -- can exist within a scenario other than the repeated Prisoners' Dilemma. Second, since we have already incorporated the influence of power into the analysis by way

of defining legitimate threats and counter-threats, we cannot now use power to predict which of these two equilibria prevail. Equilibrium selection must occur on some other basis. Third, neither of the equilibria we identify here is Pareto-dominated by the other. Thus, there is no reason to suppose *a priori* that states will gravitate to one rather than the other -- whether they thus gravitate will depend on things other than the relative efficiency of one equilibrium as compared to another. Fourth, the existence of a collective security equilibrium does not depend on the supposition that states maximize absolute as against relative resources -- both goals are equivalent because total resources are constant. Thus, the resolution of the debate over goals is not, *per se*, an essential step to explaining cooperation. Finally, this analysis illustrates that learning how states coordinate to particular equilibria is an essential part of any explanation for final outcomes. If there are multiple equilibria in so simple a model as the one we offer, then we can be certain that this multiplicity characterizes an even more complex reality.

There is one final matter that we must attend to that emphasizes this last point. Specifically, if we add countries to the model, then there is a third type of equilibrium that admits of alliances, that admits of a concern with relative gains and power, and that is described thus (Niou and Ordeshook 1992):

- E3: In pre-play negotiation, countries partition themselves into exhaustive and disjoint subsets -- alliances. Members of the same alliance then play as in E2 with respect to each other, and as in E1 with respect to countries outside of their alliance. That is, an alliance is a limited collective security arrangement in which alliance members are punished for any defection. (Note that this strategy is equivalent to E2 when  $n = 3$ .)

Thus, in addition to the extremes of an all-encompassing collective security arrangement versus one in which agreements are forged at the time threats are made, there are intermediate possibilities so that coordination involves the selection of a particular arrangement from a potentially vast menu.

## 5. Problems of Coordination

Having thus identified the variety of equilibria that can exist within a single scenario, let us now consider the problems associated with coordinating to particular equilibria. Looking first at Game 4 and ignoring the possibility of alliances, consider the prospect of the three countries in this example coordinating merely with some pre-play discussion that allows them to express an agreement to choose strategies in accordance with one equilibrium or the other. After all, as we note earlier, coordination involves little more than establishing a set of beliefs so that choosing the appropriate strategy is a best

response for each player, and there does not seem to be a more straightforward way to establish such beliefs than by having each person express his or her intent to choose a particular strategy beforehand.

It is here, however, that we can discern the sources of the realist's disagreement with neoliberalism, because there are good reasons for supposing that mere pre-play discussion is ineffectual with respect to ensuring the collective security equilibrium (E2,E2,E2). First, this equilibrium calls for states to "do nothing" until there is a defection that warrants punishment. Hence, regardless of the verbal agreements they reach, each state, as the game unfolds, may question whether others are abiding by their collective security strategies or whether they are merely postponing making a threat until circumstances (not modeled here but presumably including exogenously induced changes in the distribution of resources) are favorable to that purpose.

Second, collective security requires that states punish defectors; but proposing a punishment (as opposed to some other threat) may be rational only if it is certain beforehand that the ostensible partners in the punishment will maintain their commitment to it. Because a collective security equilibrium is subgame perfect in our model, doing so is rational here. But we should not ignore the possibility, as a practical matter, that states might be concerned that a defection of one type increases the perceived likelihood of yet other defections, so that defection becomes a self-fulfilling prophesy. Our example, after all, assumes that all countries have perfect foresight, whereas if there is always something left to chance, then, barring a perfectly functioning coordination mechanism, the viability of pursuing a punishment strategy may be reduced.

Third, that collective security is an equilibrium means only that no state has an incentive to defect *unilaterally* from the agreement. This does not mean that states cannot gain if two or more of them defect simultaneously -- if there are coordinated defections. For example, if states 2 and 3 defect from (E2,E2,E2) to (E2,E1,E1), then country 2 gains and 3 loses nothing. And, stepping outside the limits of our formal analysis for a moment, country 2 can presumably reward 3 somehow for its compliance. Indeed, if we are willing to assume that states can coordinate to achieve one type of equilibrium, then, barring other considerations, we should be willing to assume that subsets of them can coordinate to achieve other ends -- if  $n$  countries can coordinate, then it is reasonable to assume that  $m < n$  can also coordinate.

Although the realist's objection to the neoliberal argument takes the form of a discussion of these issues, we can see its theoretical content better by referring to Game 5, which, like the Battle of the Sexes and like Game 4, has two non-equivalent, non-interchangeable equilibrium strategy pairs,  $(a_1, b_1)$  and  $(a_3, b_3)$ . At first glance we might suppose that, barring any prior asymmetrical beliefs about strategies, neither equilibrium is more likely to prevail than the other. But suppose we consider the outcome that prevails if the two players start at arbitrary strategy pairs and if they adjust their

strategies sequentially. For example, if they begin at  $(a_1, b_2)$ , they arrive at (3,4) if column chooser moves first, whereas they arrive at (4,3) if row chooser moves first, followed by column chooser (via the route  $a_1$  to  $a_3$ ,  $b_2$  to  $b_3$ ). Counting the number of ways each equilibrium can be reached from some other pair of strategies, there are four routes to (3,4) and ten to (4,3). Thus, we might suppose that in the absence of coordination, (4,3) is more likely to prevail than is (3,4).

	$b_1$	$b_2$	$b_3$
$a_1$	3, 4	0, 0	0, 0
$a_2$	0, 0	2, 2	1, 4
$a_3$	0, 0	4, 1	4, 3

Game 5

A similar calculation pertains to the situation portrayed in Game 4 if we suppose that country 3 gains some nominal amount from its coalition partner whenever it participates in an initial threat -- there are twice as many routes to (E1,E1,E1) as there are to (E2,E2,E2). The realist's objection to neoliberalism, then, can be restated thus: Although the equilibrium neoliberal institutionalists postulate require explicit coordination, the absence of effective coordination is more likely to yield realist's scenario than it is to any other outcome. Understanding this, states naturally prepare for a competitive and less than wholly cooperative or benign environment.

Game 4 and its  $n$ -country counterparts, however, cannot resolve matters in favor of one side or the other until other matters are considered, including the costs of conflict, the positive externalities that accrue to all states from cooperative action, incomplete information, deception, and misperception. Neoliberalism continues to have available to it the response that not only is a cooperative equilibrium attractive because convergence to it can be made mutually beneficial, and not only do events reveal that the requisite coordination is feasible, but the mechanisms of coordination can also expand the opportunities for convergence to that equilibrium. On the other hand, barring a compelling argument to the contrary, realists are justified in arguing that prudent states will be concerned that the promise of a wholly cooperative equilibrium is only that -- a promise -- and that those who fail to make appropriate preparations for a more conflictual system will be disadvantaged. These preparations, in turn, establish a set of beliefs that move outcomes away from those that neoliberals envision as equilibria. That is, the supposition of a conflictual environment may be more readily sustained as a self-fulfilling prophesy than a wholly cooperative one.

## 6. The Debate Recast

Returning to the issue with which we began -- goals -- consider the conclusion that the discussion of them is tangential to a theory of international systems. It is of course true that any model of international politics must begin with an assumption about goals as an initial operating hypothesis. And despite the fact of the occasional national leader bent on world or regional domination, there is little to dissuade us from assuming, in accordance with Powell's (1991) analysis, that absolute gain is the primary goal and relative gain is at best a derivative concern. But while recognizing that governments can appear to seek different ends, depending on circumstances, we cannot ignore that the circumstances dictating the compatibility or incompatibility of specific goals are themselves endogenous and depend on what states believe about the beliefs and strategies of other states. More to the point, goals are best thought of either as the epiphenomena of these beliefs or as a component of the description of different equilibria.

To illustrate, recall our discussion of the hegemon's role, and notice that we can conduct this discussion without references to goals. Although much of what we say is predicated on the supposition that each state's fundamental goal is welfare maximization, predicting whether cooperation or conflict emerges after a hegemon's decline does not require any reassessment of goals. Instead, prediction requires an assessment of the necessity for and viability of alternative coordinating mechanisms. If a hegemon's decline is accompanied by state actions that are consistent with relative resource maximization -- with a less cooperative and more conflictual environment -- the explanation for these actions cannot be that goals have changed. Such an "explanation" is but a redescription of events. Our explanation must be that states can no longer coordinate to the same outcomes as before, which, in turn, requires an explanation that refers to beliefs, feasible strategies, the relation between strategies and outcomes, and the properties of different equilibria.

It may be true that equilibrium selection in a post-hegemonic system, as Krasner (1991) argues, depends on things that we think of as components of state power. To suppose that the institutions that emerge to facilitate cooperation or conflict do not represent the capabilities of states is unwarranted because it ignores the fact that "something" must structure international relations. However, regardless of the level at which we conceptualize matters, coordination in some form remains an essential part of equilibrium selection. Moreover, a primary concern with relative gain remains a derivative matter, depending on whether they coordinate to a wholly cooperative or to a competitive equilibrium. It follows that explanations of conflict and cooperation in systems without a hegemon require an assessment of coordination and of the mechanisms required to coordinate to one type of equilibrium rather than another.

Insofar as the coordinating efficacy of regimes and institutions is concerned, this is neither the time nor the place to launch into a discussion of the varied ways in which regimes and institutions



perform their function. But it is useful to explore why realists seem less concerned than neoliberals with institutions. We can begin with the fact that although  $(a^*, b^*)$  and  $(a', b')$  may both be equilibria to the same game, their other properties may make one less attractive than the other as a prediction. For example, although both players playing Tit-for-Tat and both players choosing not to cooperate in the repeated Prisoners' Dilemma are both equilibria, Tit-for-Tat is not a *subgame perfect* equilibrium -- if a player believes that his "opponent's" deviation from cooperation is a one-time error, then it is irrational to punish since doing so merely causes the other player to punish subsequently, which results in an endless sequence of otherwise unwarranted punishments (c.f., Ordeshook 1992). Similarly, consider the threat-counter-threat game we outline in Section 4. In this instance, although  $(E1, E1, E1)$  and  $(E2, E2, E2)$  are both equilibria,  $(E2, E2, E2)$  is less stable because it is not a *strong* equilibrium. To see this, suppose 1 threatens  $(150, 0, 150)$ . The strategy E2 calls for 3 to "reject" so that 2 and 3 can punish 1; but since we also predict that 3 cannot gain resources, 3 is indifferent between rejecting and accepting 1's offer. Thus,  $(E2, E2, E2)$  is an equilibrium in a weak sense -- although 3 has no positive incentive to defect from E2, it also has no positive incentive to abide by it. Finally, our count of the number of paths to each equilibrium in Game 5 suggests that  $(E1, E1, E1)$  is more likely to prevail through uncoordinated action than is  $(E2, E2, E2)$ .

We can hypothesize, then, the importance of institutions and the concept of a regime to the neoliberal argument stems from the fact that the equilibria they seek (as opposed to the type realists predict) require "strengthening" if they are to be maintained. That the attractiveness of a collective security equilibrium can be more readily enhanced than a conflictual one seems reasonable -- there are positive externalities from a non-conflictual environment that exist to a lesser degree when states must be concerned with threats to their sovereignty. Hence, if the institutions required for realizing these externalities can be set in place, everyone has a greater incentive to establish, coordinate to, and maintain a collective security equilibrium.

Of course, realists cannot wholly discount the relevance of institutions. Alliances are a part of their argument and institutions can be as necessary to the maintenance of an alliance as a limited collective security arrangement that meets an external military threat as they are to the maintenance of an all encompassing collective security arrangement designed to facilitate a mutually beneficial world economy. The realist's argument, though, is that certain types of alliances and the institutional forms that service them arise "naturally" out of the competition among states and the necessity for ensuring one's sovereignty in anarchic systems. The alliances that fail to form or to survive are those that do not establish these institutions.

The realist view, then, has a Darwinian flavor whereas in the neoliberal scheme, a cooperative outcome and its corresponding institutions prevail if and only if states consciously direct their efforts

to that end. We hesitate, nevertheless, to offer a position in the realist-neoliberal debate, because we know too little about how coordination mechanisms influence those processes. This essay, then, is less a critique of realism and neoliberalism than it is an acknowledgment that many if not most of the insights and conclusions from both schools of thought ought to be central to the construction of any general paradigm. However, the phenomena that concern us are complex, and existing modes of inquiry -- verbal argument and metaphorical appeals to elements of game theory -- have reached the point of diminishing marginal returns. Thus, choosing between these two competing schools of thought is at present largely a function of the emphasis one chooses to place on different parameters and of taste -- hence, this essay's title.

Are international affairs so risky that states cannot rely on collective security agreements to ensure their sovereignty or are the gains from cooperation sufficiently great that wholly competitive policies are antiquated? Has global territorial competition been replaced with a competition for economic dominance? To what extent is the ability to coordinate sensitive to domestic politics? Is economic competition conducted by extra-territorial entities more benign than other forms? Have institutional inventions and the technologies that service them made coordination appreciably less difficult? Is the concept of the nation-state itself becoming less relevant as new international actors and forms of international organization arise to shape a world economy?

Answers to such questions require a coherent theoretical structure, and although we do not have the temerity to attempt a description of a wholly general theory, we can discern what it is we require of that theory. First, because international systems are characterized by a multiplicity of feasible equilibria regardless of the level of generality with which we conceptualize matters, ascertaining the extent to which coordination is required to achieve different types of equilibria and learning how people and states coordinate to them are our central problems. Second, rather than deal with state goals as a primary explanatory variable, we should focus on the properties of different equilibria, including their durability (stability) in the event of accidental deviations and the likelihood that they can prevail under different assumptions about system dynamics. Third, although we may choose to allow power and the pursuit of relative gain to influence equilibrium selection at one level of analysis (as when states design institutions to choose alternative Pareto efficient outcomes), our theory should render such goals the consequence of the selection of an equilibrium in some higher or more general level coordination problem. Finally, that theory should clarify the role of institutions in the evolution of beliefs, in coordination, and in the enhancement of the attractiveness of equilibria. We should realize, though, that owing to the complexity and inclusiveness of the phenomena under consideration, the likelihood of some all-encompassing, mathematically rigorous theory is low. Instead, using basic tools drawn from game theory and other fields, we must begin to develop more carefully some first principles of competition and cooperation. This essay suggests that those first principles should focus

on the mechanisms whereby people coordinate strategies so as to achieve and maintain different equilibria and to render cooperative equilibria more impervious to error and misjudgment. But just as neither the scientist nor the engineer attempts to derive theorems about concert hall acoustics or to establish equations in closed analytic form about airfoil design, we should not anticipate theorems about the macro-processes of international politics. Instead, research that makes use of these principles, including principles of game theory's folk theorems, will make heavy use of experience and common sense. Thus, that application will not take the form of rigorous models with arcane notation. Rather, it will be as much an art as it is a science, with perhaps the greatest emphasis placed on art.

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